

CLAIMS

Having thus described the invention, what we desire to claim and secure by letters patent is:

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An automatic pool cover system for operating a slat type cover comprised of a plurality of interconnected relative rigid buoyant slats, and controlling movement of same to a closed position over a swimming pool and to an opened position where the cover is wound upon a drum, said system comprising:

- a) a cover drum rotatably mounted in a subaqueous position and which controls effects of buoyant forces which tend to cause unwinding of the cover from the drum and movement of same to a closed position;
- b) a cable reel operatively mounted with respect to said cover drum and being rotatable in relationship to said cover drum;
- c) a power source for controlling movement of said cable and being at a remote location from said swimming pool; and
- d) a cable trained about said cable reel and extending from said cable reel in proximity to said swimming pool to said power source and being operable by said power source to cause rotation of said cable

reel and thereby causing rotation of said cover drum to wind the pool cover onto the drum.

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5 The automatic pool cover system of Claim 1 further characterized in that said cover drum and said cable reel are coaxially mounted on a common shaft means.

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10 The automatic pool cover system of Claim 2 further characterized in that said cable reel rotates at the same rate of speed as said cover drum.

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15 The automatic pool cover system of Claim 1 further characterized in that said power source comprises a cable spool and motive means for operating said cable spool to cause a simultaneous unwinding of cable from the cable reel and onto the cable spool in response to operation of said motive means.

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 The automatic pool cover system of Claim 1 further characterized in that a brake means is operatively connected to said motive means to control speed of movement of said cable and, hence, said cover drum when said cover unwinds from the cover drum to the closed position.

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The automatic pool cover system of Claim 1 further characterized in that a pair of cable reels is mounted co-axially with respect to said cover drum and one cable pays out from one of said cable reels to said cable drum and the other receives cable wound thereon simultaneously with the payout of the cable from the first cable reel therefrom.

An improvement in the control of movement of a swimming pool cover to a closed position and to an opened position, where the cover is wound upon a cover drum, and which cover is powered for movement through a motive means, said improvement comprising:

- a) a cable reel located co-axially with respect to said cover drum;
- b) a cable spool at remote location with respect to said cover drum and being powered by a motive means; and
- c) a cable extending between said cable reel and cable spool and causing rotation of said cable reel and said cover drum upon operation of said motive means.

The improvement of Claim 7 further characterized in that said cover drum and said cable reel are co-axially mounted on a common shaft means.

The improvement Claim 8 further characterized in that said cable reel rotates at the same rate of speed as said cover drum.

The improvement of Claim 7 further characterized in that said motive means operates said cable spool to cause a simultaneous unwinding of cable from the cable reel and onto the cable spool in response to operation of said motive means.

The improvement of Claim 10 further characterized in that a brake means is operatively connected to said motive means to control speed of movement of said cable and, hence, said cover drum when said cover unwinds from the cover drum to the closed position.

The improvement of Claim 7 further characterized in that a pair of cable reels is mounted co-axially with respect to said cover drum and one cable pays out from one of said cable reels to said cable drum and the other receives cable wound thereon simultaneously with the payout of the cable from the first cable reel therefrom.

The improvement of Claim 7 further characterized in that roller means is located above the water surface of the swimming pool and that the cable extends from the reel over said roller means to said cable drum.

A method of controlling movement of a slatted type buoyant pool cover to a closed position over a swimming pool and to an opened position where the pool cover is wound upon a cover drum, said method comprising:

- a) providing a pulling force on a cable operatively trained with respect to a drum and providing that pulling force at a remote location; and
- b) providing a braking force to said cable and, hence, to said cover drum to control the rate of movement of the cover from the cover drum.

The method of Claim 14 further characterized in that said method comprises training said cable about a cable reel mounted coaxially with respect to said cover drum and about a cable spool located at a remote source and which is powered at said remote source by said motive means.

The method of Claim 14 further characterized in that said method comprises simultaneously winding one cable about said cable reel and withdrawing cable from another cable reel also mounted coaxially with respect to said drum.